REMARKS/ARGUMENTS

Double Patenting

Claim 34 was provisionally rejected under the doctrine of double patenting as being obvious over claim 51 of copending US application 10/567,868. The applicant disagrees as both applications have the same earliest priority date and as such will not provide for an undue term extension. Nevertheless, in the event that conflicting claim 51 should issue prior to claim 34 of the instant application, the applicant will amend the claim or file a terminal disclaimer. The provisional rejection should therefore be moot.

35 USC § 112(first paragraph)

Claims 34-40 were rejected under 35 USC § 112(1st paragraph) as failing to comply with the written description requirement. More specifically, the examiner noted that the knowledge and level of a person of ordinary skill in the art would not permit immediate envisaging of the claimed subject matter with respect to the terms "compound having cytokinin activity [claim 34], a biguanide, a sulfonyl urea, a meglitinide, a thiazolidinedione, and a second compound having cytokinin activity [claim 40]". The applicant respectfully disagrees.

With respect to the term "a compound having cytokinin activity" the applicant points to the specification (on page 10, line 3 to page 11, line 11) that provides express definition of the term via sufficiently detailed and relevant functional characteristics. It should be noted that there is nothing inherently wrong with defining some part of an invention in functional terms. Indeed, functional language does not, in and of itself, render a claim improper. *In re Swinehart*, 439 F.2d 210, 169 USPQ 226 (CCPA 1971). For example, it was held that the limitation used to define a radical on a chemical compound as "incapable of forming a dye with said oxidizing developing agent" although functional, was perfectly acceptable because it set definite boundaries on the patent protection sought. *In re Barr*, 444 F.2d 588, 170 USPQ 33 (CCPA 1971). See also MPEP 2173.05(g).

With respect to the term "a biguanide" it is noted that this term is well understood in the art (see *e.g.*, "Value Of Biguanide In Therapy Of Diabetes Mellitus" in: Med Klin (Munich). 1997 Aug 15; 92(8):472-9, 505; or http://en.wikipedia.org/wiki/Biguanide). As is evident from

the publicly available art at the time of filing, the term biguanide had well characterized physical and chemical properties with well defined functional characteristics.

With respect to the term "a sulfonylurea" it is noted that this term is well understood in the art (see *e.g.*, "Sulfonylurea Stimulation Of Insulin Secretion" in: Diabetes. 2002 Dec; 51 Suppl 3:S368-76; or http://en.wikipedia.org/wiki/Sulfonylurea). As is evident from the publicly available art at the time of filing, the term sulfonylurea had well characterized physical and chemical properties with well defined functional characteristics.

With respect to the term "a meglitinide" it is noted that this term is well understood in the art (see *e.g.*, "Stimulation Of Insulin Release By Non-Sulfonylurea Hypoglycemic Agents: The Meglitinide Family" in: Horm Metab Res. 1995 Jun; 27(6): 263-6; or http://en.wikipedia.org/wiki/Meglitinide). As is evident from the publicly available art at the time of filing, the term meglitinide had well characterized physical and chemical properties with well defined functional characteristics.

With respect to the term "a thiazolidinedione" it is noted that this term is well understood in the art (see *e.g.*, "Thiazolidinedione Therapy: The Benefits Of Aggressive And Early Use In Type 2 Diabetes" in: Diabetes Technol Ther. 2003;5(4):685-93; or http://en.wikipedia.org/wiki/Thiazolidinedione). As is evident from the publicly available art at the time of filing, the term thiazolidinedione had well characterized physical and chemical properties with well defined functional characteristics.

With respect to the term "a second compound having cytokinin activity", the same arguments as provided above for the term "compound having cytokinin activity" apply and are not reiterated here.

The test for sufficiency of support in a parent application is whether the disclosure of the application relied upon "reasonably conveys to the artisan that the inventor had possession at that time of the later claimed subject matter." Ralston Purina Co. v. Far-Mar-Co., Inc., 772 F.2d 1570, 1575, 227 USPQ 177, 179 (Fed. Cir. 1985) (quoting In re Kaslow, 707 F.2d 1366, 1375, 217 USPQ 1089, 1096 (Fed. Cir. 1983)). Undoubtedly, the above terms were well understood in

the art at the time of filing and the specification further expressly refers to such compounds and examples. Moreover, all of the above compounds are also well characterized in terms of physical and chemical properties and functional characteristics. Therefore, the rejection of claims 34-40 under 35 USC § 112 (1st paragraph) is improper and should be withdrawn.

35 USC § 112(second paragraph)

Claim 38 was rejected under 35 USC § 112(2nd paragraph) as lacking enablement with respect to the term "prodrug". The applicant respectfully disagrees and points to the specification (*e.g.*, page 19, line 20 to page 20, line 2) in which specific types of prodrugs and various prodrug modifications are provided.

35 USC § 102(b)

Claims 34-36 and 39 were rejected under 35 USC § 102(b) as being anticipated by Thiel et al. (U.S. Pat. No. 3,506,643) or Jacobson et al. (U.S. Pat. No. 3,668,774). The applicant again respectfully disagrees, especially in view of the amendments herein.

As amended herein, claim 34 (and claims 35-36 and 39 by virtue of their dependence on amended claim 34) expressly requires a "...compound having cytokinin activity...in a ***dosage effective to modulate glucose metabolism*** in a mammal..." and further ***expressly disclaims specific substituted N6-benzyladenosine compounds***. These elements are not taught by the cited art.

In contrast, **Thiel et al** teach selected substituted N6-benzyladenosine compounds that are excluded from the scope of the claim. Moreover, Thiel fails to teach that the selected substituted N6-benzyladenosine compounds are formulated to achieve a desired cardiovascular effect, which is entirely inconsistent with the presently claimed subject matter (here: in a dosage effective to modulate glucose metabolism).

With respect to **Jacobson et al** it is noted that the compounds of the '774 patent are not identical to those claimed as alleged by the examiner. More specifically, and with regard to the cited passage of column 42, claims 9-12, all of Jacobson's compounds either require a modified

ribose moiety (*e.g.*, alkylamido at X_2 in claim 1, or hydroxyalkyl at X_2 in claim 5, or a thiocycloalkyl as in claim 7), and/or a modified purine system (*e.g.*, halobenzyl as in claims 1 and 5, or halo or alkylamino at R_2 as in claim 5). Should the examiner argue that the compounds of Thiel and/or Jacobson would have cytokinin activity, official notice on the record to that effect is respectfully requested.

REQUEST FOR ALLOWANCE

Claims 34-40 are pending in this application, with claims 41-53 being withdrawn. The applicant requests allowance of all pending claims.

Respectfully submitted,

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